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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/760,484 | 01/21/2004 | Gregory R. Zimmer | 024445-110 | 9807 |

55694 7590 08/04/2006

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WASHINGTON, DC 20005-1209

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| EXAMINER |
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HAMILTON, ISAAC N

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| ART UNIT | PAPER NUMBER |
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3724

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/760,484

Applicant(s)

ZIMMER, GREGORY R.

Examiner

Isaac N. Hamilton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,8-10,31-33,36 and 37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8-10,31-33,36 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malm (3,411,208) in view of Reijnders (6,464,121). Malm discloses cutting rule in figure 3; shank portion 30; two parallel shank sides surfaces 31, 32; V-shaped cutting edge portion 33; cutting edge portion surfaces 34, 35; intermediate portion surfaces 36, 37; thickness in column 4, lines 6-13; hardness in column 3, lines 31-33; the shank portion has a lower hardness at a surface of the shank portion than at a center of the shank portion as disclosed in column 3, lines 3-8. Note that the method by which the apparatus is processed, i.e. shaving, does not further limit the claim limitations because the process does not add structure to the apparatus.

Malm does not disclose a plurality of notches extending inwardly from the cutting edge with distances between at least two pairs of succeeding notches being different. However, Reijnders teaches a plurality of notches having different distances between at least two pairs of succeeding notches in figure 7. It would have been obvious to provide a plurality of notches spaced with different distances between at least two pairs of succeeding notches in Malm as taught by Reijnders in order to avoid cutting elements on the surface area of the workpiece.

Claims 2, 10, 31-33 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Malm and Reijnders as applied to claims 1, 3-5 and 8 above, and further in view of Kugumiya et al (5,971,517). The combination discloses everything as noted above,

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but does not disclose the nicked cutting rule being bendable to 150 degrees at a radius of 0.35 mm. However, Kugumiya teaches the nicked cutting rule being bendable to 150 degrees at a radius of 0.35 mm as shown in figure 4. It would have been obvious to bend the nicked cutting rule to 150 degrees at a radius of 0.35 mm in the combination as taught by Kugiyama in order to pressingly cut a paper sheet for making a folding paper box.

Moreover, it would have been obvious to one of ordinary skill in the art to provide the elements mentioned above for the purpose of maximizing cutting efficiency for different materials, such as, plastic, paper, rubber, wood, cardboard, and metal. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. Such a modification would have involved a characteristic of a component. A change in bendability is generally recognized as being within the level of ordinary skill in the art.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac Hamilton whose telephone number is 571-272-4509. The examiner can normally be reached on Monday through Friday between 8am and 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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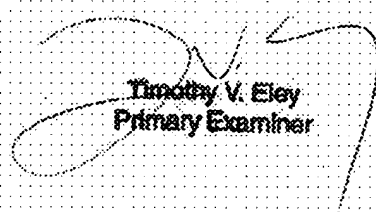
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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LAJ

III

July 31, 2006


Timothy V. Eley
Primary Examiner